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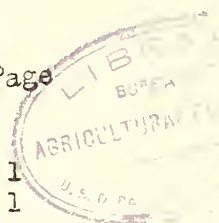
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AUG 2 1929

Memorandum regarding Bureau of Crop Estimates.

C o n t e n t s.

	Page
What is the Bureau of Crop Estimates.....	1
What does it do.....	1
What are the Government crop reports.....	1
How are the Government crop reports pre- pared and issued.....	1
Organization of the Bureau:	
In Washington.....	2
In the field:	
Field agents.....	2
Crop specialists.....	2
Field clerks	2
Voluntary crop reporters.....	2
Reorganization of Bureau in 1914.....	3
Progress since reorganization.....	3
Why Government crop reports are necessary and of value.....	5
People and agencies benefited by Government crop reports.....	6
Continuing and increasing demand for service.....	8
Inadequate appropriations and service.....	8
Preparation for 1920 census.....	10
Enlarged Program:	
Crop production.....	11
Livestock production.....	12
Foreign crop and live stock production.....	13
Analysis, interpretation and presentation.....	13
Summary.....	13
Distribution of General Expense Appropriation and estimates by objects.....	14
How increase in appropriation would be expended.....	18
Estimates of appropriation and action on same in Congress on March 10, 1920.....	19
Effect of reducing present ap- propriation.....	20
Recommendations with respect to H. R. 12272.....	20



THE ANTHROPOLOGY OF THE
INDIAN RACES OF THE
AMERICAN CONTINENT

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INDIAN RACES OF THE
AMERICAN CONTINENT

THE ANTHROPOLOGY OF THE
INDIAN RACES OF THE
AMERICAN CONTINENT

	Page
Importance of interests in- volved.....	21
Cost of crop reporting service.....	22
Financial returns to farmers.....	22

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E x h i b i t s.

- A - Revised Circular No. 17, (Sources of Information, Methods of Preparation and Checking, Demonstrated Accuracy).
- B - Annual Report for 1919:
 - Voluntary Crop Reporters, page 2,
 - Cooperation with State Departments of Agriculture, page 4,
 - State Assessors' Returns, page 5,
 - Accuracy of Crop Estimates, page 6.
- C - Commercial Fruit Estimate Project and Sample Reports.
- D - Truck Crop Project and Sample Reports.
- E - Copy of Project Statement for 1921.
- F - Copy of Resolution adopted by Panhandle and Southwestern Stockmen's Association at Tucson, Arizona, March 4, 1920, Commending Bureau of Crop Estimates and recommending adequate appropriation.

March 12, 1920.

Memorandum Re Bureau of Crop Estimates,
U. S. Department of Agriculture.

What is the Bureau of Crop Estimates:

The Bureau of Crop Estimates is the reorganized Bureau of Statistics and serves as the statistical clearinghouse of the U. S. Department of Agriculture and for agriculture as an industry.

What does it do:

The Bureau of Crop Estimates prepares and issues the monthly Government crop reports, prepares and issues the Monthly Crop Reporter, prepares the Statistical Appendix to the Yearbook of the Department of Agriculture, issues the Weekly Truck Crop News Service, Weekly Crop Notes of Field Agents, and Semi-Monthly Foreign Crop Notes, and issues summaries of crop reports on crop reporting days to the associated press and telegraphs them to a field agent in each State who releases them to all State and local papers for immediate publication. The Bureau also transmits to the International Institute of Agriculture at Rome the crop estimates of the United States and receives from the Institute the crop estimates for all adhering countries of the world. The Bureau maintains the most complete collection of agricultural statistics in the world and answers the heavy and growing correspondence involving the statistics of every branch or phase of agriculture so far as available.

What are the Government crop reports:

The Government crop reports are estimates of the acreages planted to different crops, growing condition of crops, forecasts of crop production, estimates of yields per acre at harvest, total production, and farm prices for about 60 different crops; estimates of the number of each class of live stock on farms in January, number of brood sows, live stock losses from various causes, and farm prices; wages of hired farm labor, hours of labor on farms, and prices farmers pay for machinery and supplies; special estimates of seed, labor, and fertilizer requirements on farms, acreage and production of principal varieties of some of the staple crops, and marketable surplus production of certain fruit and truck crops.

How are the Government crop reports prepared and issued:

See Bureau of Crop Estimates Circular No. 17.

Organization of the Bureau:

In Washington: Administrative staff, statisticians, statistical clerks and computers, clerical and messenger force, about 110 employees; average salary about \$1,200.

In the field:

- 42 State field agents I in each of the larger States and I for each group of smaller States; average salary about \$2,100; qualifications, 25 to 45 years of age, 5 years' practical experience in farming, equivalent of 4 years' course in agricultural college or 3 years' practical experience in responsible statistical work. Each field agent maintains permanent headquarters in each State, collects information by personal inspection of crops and interviews with best informed men in each county, and by monthly reports from 500 to 5,000 selected crop reporters. He reports weekly and monthly to the Washington office and handles correspondence with respect to crop and live stock statistics in his State.
- 39 field clerks in the office of the State field agents to assist in tabulation, correspondence and files; average salary about \$900.
- 10 crop specialists, same qualifications as field agents, average salary about \$2,200; each specializes on a particular crop, as cotton, tobacco, rice, fruit and truck crops; collects information by same methods as field agent, but disregards State lines.
- 3,000 county reporters, serving without compensation, each reporting for his county directly to the Washington office, basing reports on personal observation and reports of aids.
- 32,500 township reporters, serving without compensation, each reporting monthly for his own neighborhood direct to the Washington office, basing reports on personal observation and interviews with neighbors.
- 25,000 field aids, serving without compensation, each reporting monthly for his own neighborhood or county direct to the State field agent.
- 155,000 special reporters, serving without compensation, each reporting weekly, monthly, or periodically, either to the Washington office or to the State field agent, on the particular crop in which he is personally interested, as potatoes, apples, peanuts, beans, sugar crops, fruit and truck crops, live stock, etc.

Total number of crop reporters about 215,000.

Reorganization of the Bureau of Crop Estimates:

The Bureau of Crop Estimates was reorganized in 1914, the principal innovation being the employment of field agents, crop specialists, and field clerks -- in other words, putting trained men into the field to personally inspect crops, to supplement and interpret the data furnished by voluntary crop reporters, and to accumulate in a State office all the statistical information regarding crop and live stock production in each State; the crop specialists to specialize on particular crops, supplementing the work of the field agents and voluntary reporters, keeping in touch with and securing the cooperation of organizations of growers of these crops, ascertaining the needs of the growers and supplying them with the kind of information most needed. These field agent offices also handle an enormous volume of correspondence which comes to them direct or which is referred to them by State officials calling for statistical information for the State, thereby relieving the central office at Washington. The system of field agents and crop specialists has revolutionized the crop and live stock reporting service.

Progress since reorganization;
1913 and 1920 compared:

(1) Appropriation increased from \$240,892 to \$371,102, total increase 54 per cent, annual increase about 8 per cent.

(2) Employees in Washington office increased from 100 to 110, total increase 10 per cent, annual increase about $1\frac{1}{2}$ per cent.

(3) Employees in field increased from 70 to 89, total increase 27 per cent, annual increase about 4 per cent.

(4) Total employees increased from 170 to 200, total increase 17.6 per cent, annual increase about $2\frac{1}{2}$ per cent.

(5) Voluntary crop reporters increased from 109,500 to 216,000, total increase 97.2, annual increase about 14 per cent.

(6) Schedules used annually increased from 1,422,000 to 6,000,000, total increase about 322 per cent, annual increase 46 per cent.

(7) Average of all salaries increased from \$1,093 to \$1,219, total increase about 11.5 per cent, annual increase about 1.6 per cent.

(8) Work per employee increased about 246 per cent, annual increase about 35 per cent.

(9) Cost per unit of work decreased by 63.5 per cent, annual decrease about 9 per cent.

(10) Increase in rate of work per employee about six times rate of increase in appropriation.

(11) Increase in rate of work about fifteen times rate of increase in number of employees.

(12) Bureau established a fruit crop reporting service, especially for apples, peaches and pears, in response to specific demands of commercial apple growers, who desired periodical estimates of production by varieties, production by districts of commercial importance, and marketable surplus production, i. e., portion of crop marketed from farms as distinguished from total production on farms, much of which is never marketed. This service has proved highly satisfactory, has brought the Bureau much commendation, and has saved the growers large sums of money. The President of the Eastern Fruit Growers' Association states that this special service in 1919 was worth to the commercial apple growers alone not less than 1 million dollars, or nearly three times as much for this one crop as the entire cost of the Bureau for more than 60 crops and 6 classes of live stock.

(13) The Bureau established a truck crop reporting service corresponding with its special fruit crop reporting service and with equally satisfactory results to the growers.

(14) In 1919 the Bureau established a system of reporting on the commercial potato crop twice a month as the crop approaches maturity when growers are making selling contracts, which will save to the growers more than the entire amount involved in the Bureau's estimates of appropriation. The President of a cooperative potato growers' association in Clay county, Minnesota, telegraphed that the service had been worth to the potato growers in his county at least \$100,000 in 1919.

(15) Since 1913 the Bureau has added to its regular estimates reports on the grain sorghums, alfalfa, peanuts, beans, honey, cranberries, and a number of other special crops.

(16) For the past two years the Bureau has estimated, on a limited basis, monthly changes in numbers of live stock.

(17) In many States the Bureau field agents have made county estimates within the last two or three years.

(18) The Bureau has combined personnel and equipment under formal cooperative agreements with State Departments of Agriculture in 15 States, thereby economizing in funds, avoiding duplication of effort and unnecessary expense, and greatly improving the service.

(19) The thoroughness and accuracy of the crop estimates has improved greatly in recent years.

(20) The Bureau has systematically sought and won the co-operation of State, local and private agencies in every State.

(21) The Bureau has largely overcome the widespread feeling of indifference, antagonism, hostility and criticism which prevailed in the past, and now has the confidence and friendly cooperation of the best informed and most influential men, including State Departments of Agriculture, State Colleges of Agriculture and Experiment Stations, State Extension Services, county agents and Farm Bureaus.

(22) Above all the Bureau has developed a highly specialized and efficient organization and system for crop estimating which is probably the best of its kind in the world.

Why Government crop reports
are necessary and of value:

The prices farmers receive in relation to their cost of production determines whether or not the business of farming is profitable. Prices farmers receive are determined by the law of supply and demand, i. e., relation of supply to demand. The demand for farm products is practically constant, tending to increase with growth of population. The supply is therefore the real price-determining factor. The Government crop reports containing dependable information with respect to the essential facts of production and supply, present and prospective, are necessary because --

(1) They are dependable, i. e., more complete, accurate and comprehensive than can be compiled by any private or State agency.

(2) They are disinterested and unbiased: All Government employees concerned in the preparation or issuance of the Government crop reports are prohibited by law from (a) speculating in any product of the soil, (b) from knowingly compiling or issuing any false statistics, and (c) from communicating directly or indirectly any information concerning a forthcoming report in advance of its release to the public, under penalty of a fine of not to exceed \$10,000, or imprisonment for not to exceed 10 years, or both. The preparation and issuance of the crop reports is surrounded by every possible safeguard so that even the employees who prepare the final report are unable to know the results until within a few minutes of the time of their release, and up to the very minute of their release these employees are locked in under guard and all telephones are disconnected.

(3) They are nation wide in their scope and all reports are on a uniform and comparable basis for all States.

(4) They are authoritative, having the sanction and prestige of the Federal Government.

(5) The Federal Government can obtain information from individuals, firms and corporations, and from other Federal and State institutions, which is not available to private individuals or agencies.

(6) They protect producers and consumers by tending to prevent the issuance of false and misleading reports by speculators, just as the presence of the constabulary tends to prevent crime.

(7) They tend to reduce or prevent speculation in farm products by making available to farmers and the public dependable information as fully and completely as can be obtained by speculators. Speculation thrives on uncertainty and lack of information on the part of the public; when the same information is available to all alike, there is less room for speculation.

(8) They reduce the risk involved in buying and holding farm products because of increased certainty with respect to the supply, thereby enabling buyers to operate on similar margins and pay higher prices to farmers.

(9) They enable boards of trade and exchanges which deal in farm products to make price adjustments more nearly in accordance with the facts of production, supply and demand and less in accordance with the interested maneuvers of speculators, thus tending to equalize and stabilize prices.

People and agencies benefited
by the Government crop reports:

Dependable information with respect to the essential facts of production and supply are of benefit to --

(1) Farmers, in deciding whether or not to increase or decrease production.

(2) Farmers, in deciding whether or not to sell at present prices or hold for probable higher prices later, i. e., to sell at top prices.

(3) Farmers' associations and organizations, in planning constructive programs of production and marketing.

(4) The Federal Department of Agriculture as a basis for constructive work and in formulating comprehensive and constructive programs of production and marketing.

(5) The Federal Bureau of Markets, especially, in conducting marketing investigations, studies of relation of supply to demand and prices, and in planning systematic marketing campaigns.

(6) State Agricultural Colleges and Experiment Stations, in planning constructive work, programs and policies.

(7) State Extension Services, in planning programs of work and agricultural development.

(8) County agents, in planning constructive work and registering progress.

(9) County Farm Bureaus and Committees, in planning constructive work and programs.

(10) State Bureaus of Markets, in conducting marketing investigations and campaigns.

(11) Boards of Trade and Chambers of Commerce, in advertising agricultural resources and advantages of particular counties.

(12) Banks, in providing necessary funds to finance crop production, harvesting and marketing.

(13) Transportation companies, in furnishing cars to move crops.

(14) Insurance companies, in estimating the risk involved in crop and live stock insurance upon which to base rates for insurance.

(15) All marketing and distributing agencies, in determining prices and movement in accordance with relative supply and demand.

(16) Manufacturers, merchants, jobbers, dealers and retailers, in buying raw materials and as basis for advertising and selling campaigns for farm machinery, equipment and supplies.

(17) Prospective investors and settlers, in deciding as to relative agricultural resources and advantages of particular counties.

(18) Legislators, Federal and State, as basis for wise legislation.

1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) and (2) under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions.

2. In the second part, we consider the case when the functions $f_i(x)$ and $g_j(x)$ are piecewise continuous and the system of equations (1) and (2) is solved in the class of piecewise continuous functions.

3. The third part of the paper is devoted to the study of the stability of the solutions of the system of equations (1) and (2) with respect to the initial conditions and the parameters of the system.

4. In the fourth part, we consider the problem of the construction of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are analytic.

5. The fifth part of the paper is devoted to the study of the asymptotic properties of the solutions of the system of equations (1) and (2) as the time t tends to infinity.

6. In the sixth part, we consider the problem of the construction of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are periodic.

7. The seventh part of the paper is devoted to the study of the properties of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are bounded.

8. In the eighth part, we consider the problem of the construction of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are convex.

9. The ninth part of the paper is devoted to the study of the properties of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are concave.

10. In the tenth part, we consider the problem of the construction of the solutions of the system of equations (1) and (2) in the case when the functions $f_i(x)$ and $g_j(x)$ are linear.

(19) Consumers, in buying supplies and in estimating probable trend of future prices.

(20) Federal and State Governments in time of peace to promote economic development, prosperity and welfare in time of war, for the national security and defense.

Continuing and increasing
demand for service:

The improved service resulting from better organization and system gradually became known and appreciated and resulted in a steady increase in the demands upon the Bureau for special service. The world war greatly stimulated interest in crop and live stock statistics, not only for the United States but for all foreign countries as well. Because farmers and business men are more and more coming to realize the fundamental importance and bearing of dependable data upon the business side of farming and marketing and distribution of farm products, the demand for such data may be expected to increase.

Inadequate appropriations
and service:

The appropriation of \$240,892 in 1913 was probably ample for the character of routine service rendered at that time. The appropriations and the service since 1913 have been and are inadequate for the following reasons:

(1) The Bureau was reorganized in 1914 and branch offices were established in each State or group of small States.

(2) The records of each field agent were kept in his private residence for several years. The work in each State grew rapidly as the field agent and his service became known, until it has been found necessary to provide him with an office, with necessary equipment, with a clerk and with a telephone. The work of each field agent has continued to grow until his present equipment and facilities are inadequate to render the service demanded in each State.

(3) In response to specific demands the Bureau has steadily increased the number of crops reported upon and the number of details for each crop, thereby adding to the work of the field agents, crop specialists and the clerical force of the Bureau.

(4) The entire service expanded steadily, and during the war rapidly, made possible by slight annual increases in regular appropriations, and during the war

by an allotment from the war emergency funds. The rate of increase in the appropriations has been only about one-sixth the rate of increase in work and service performed.

(5) On June 30, 1919, the allotment of war emergency funds amounting to \$92,000 ceased to be available and on July 1 it was necessary to reduce the clerical force of the Bureau by 20 per cent. Notwithstanding this reduction in funds and force the Bureau has attempted to continue the same service this year as last. It is found, however, that the burden is too great, some branches of the work falling in arrears and decreased efficiency on the part of the personnel being apparent. In other words, the utmost limit of efficiency and expansion has been reached with the present appropriation.

(6) Since 1913 the Federal Bureau of Markets and many State Bureaus of Markets have been established and to operate effectively these Bureaus must have dependable and timely crop and live stock reports.

(7) Since 1913 the State Extension Services have developed and county agents have been employed as the result of the Smith-Lever Act. The county agents and Farm Bureaus are urgently in need of dependable estimates of acreage, yield per acre, total production of crops and numbers of live stock, as a basis for effective work.

(8) Since 1913, in fact since the close of the war, Federations of Farm Bureaus have formed in the North, the American Cotton Association has been organized in the South, and many other farmers' organizations have developed, all needing and demanding dependable data with respect to the essential facts of crop and live stock production and supply to enable them to do constructive and effective work for which they are organized.

(9) These various agencies and the public have called upon the Bureau of Crop Estimates repeatedly and insistently for certain specific information which the Bureau can not supply with its limited appropriation and force. The service, therefore, as well as the appropriation is inadequate.

(10) The service is inadequate because it can not supply definite information with respect to acreages, yields, and production of crops, by counties, by varieties, by grades, and marketable surplus as well as total production, stocks on hand monthly, numbers of live stock of each class, age and sex, changes in number monthly, the feed situation, foreign crop and live stock situation, and because its reports are issued in tabular form not readily understood by the public.

Preparation for the 1920 census:

The past six years have been years of intensive preparation for the 1920 census and many improvements have not been effected because ---

(1) Much of the work of crop and live stock estimating is based on census data, especially with respect to acreages, numbers of live stock, and county data. For instance, a complete enumeration of acreages and numbers of live stock by counties for all farms constitutes a census which is impracticable every year by reason of the enormous expense and time involved --- about 15 million dollars and 2 or more years in time. It is therefore necessary to estimate crops and live stock between census years on a percentage basis. Starting with census data the Bureau estimates each year the percentage of increase or decrease in acreage and numbers of live stock, so that the census is the real basis of the estimates. Unless these estimates are made annually beginning with the census year, and a year or more is allowed to elapse after the census is taken, it is exceedingly difficult if not impracticable to undertake to estimate any crop or class of live stock because of the changes that have taken place during the interval which it is impossible to check up accurately. This is one of the main reasons why the Bureau has postponed attempting to estimate, or to procure the necessary funds for estimating, a number of crops and live stock products, such as seed and nursery crops, many fruit and nut crops, several field crops, vegetable oil crops, forest crops, dairy and poultry production, etc., which in the aggregate have an annual value of several billion dollars.

(2) In preparation for the 1920 census and the opportunity which comes once in 10 years for expanding the service to enable the Bureau to supply information specifically demanded by farmers and business men, the Bureau has perfected its organization and system to a high degree of efficiency, and has learned by actual trial and experience the limits of efficiency of the

present force and system. It has tried or seen tried every known method of crop and live stock estimating, in order that it might know exactly what methods are practicable, how many men will be needed and what it will cost to supply crop and live stock statistics for which there is an increasing demand.

Enlarged program:

As the result of six years' intensive preparation for the census year of 1920 and to meet a permanent and growing demand on the part of farmers and business men, as well as Federal and State agencies organized and maintained for the promotion of agriculture, the Bureau of Crop Estimates has formulated an enlarged program for expanding and improving the crop and live stock reporting service. The main features of this program are as follows:

(a) With respect to crop production the Bureau will show for all crops:

- For the United States
- For each State
- For each county
- For each district of commercial importance-

- Acreage to be planted before the planting season opens
- Seed requirements and supply
- Fertilizer requirements and supply
- Insecticide and fungicide requirements and supply
- Relative labor requirements and supply
- Progress of plowing and planting, and other farm work
- Acreage planted - first or early crop - second or main crop
- Damage from insect pests
- Damage from plant diseases
- Damage from adverse weather conditions
- Condition
- Abandoned acreage
- Forecasts of production
- Yield per acre
- Total production
- Acreage and production of principal varieties
- Marketable surplus production and stocks on farms
- Grade or quality
- Sale, disposition, or utilization of crop
- Shrinkage or loss in storage
- Farm prices.

These data will be supplied with respect to about 70 crops, including about 10 crops for which quantitative estimates have never been made in the past, but which in the aggregate have an annual value of more than 1-1/2 billion dollars.

Note that in this program with respect to crops provision is made for several important improvements:

- (1) Estimates by counties
- (2) Estimates of marketable surpluses
- (3) Estimates of farmers' intention to plant
- (4) Estimates of principal varieties
- (5) Estimates of such essential factors as seed, fertilizer, insecticide and fungicide, and labor requirements
- (6) Abandoned acreage
- (7) Grade or quality
- (8) Sale, disposition or utilization of entire crop
- (9) Shrinkage or loss in storage

(b) With respect to live stock, including horses, mules, dairy cows, beef cattle, swine, sheep, goats, and poultry, the Bureau proposes to show:

For the United States
For each State
For each county, monthly or as often as may be necessary-

The number of each kind on farms in January
The number of each age classification corresponding with the census
The number of each sex
The number of pure-bred animals
The number bred each month
The number born
The number bought or brought on to the farm
The number sold
The number slaughtered
The number lost from diseases or other causes
Net number remaining on farms monthly
Number on feed
Condition of live stock
Feed and forage available, present and prospective, silos and silage, condition and carrying capacity of pastures and ranges
Forecast of swine production
Forecast of sheep production
Forecast of meat production

Forecast of dairy production
Forecast of poultry production
Forecast of hide production
Forecast of wool production
Farm prices

Consider for a moment what this greatly enlarged live stock program means. It proposes to supply information with regard to live stock in as much detail and with the same frequency as for crops. Here is an industry that represents a farm value in excess of 10 billion dollars. It represents the present and future meat supply of our export trade. It represents in value more than half of all sales from 7 million farms. Yet at the present time the Bureau of Crop Estimates has less than \$25,000 available for ascertaining the essential facts regarding this great industry. All that can be done with the present inadequate appropriation is to estimate once a year the gross number of farm animals, the number of brood, sows, and losses from disease. The Bureau has never attempted to estimate dairy and poultry production which have an estimated annual value in excess of 3 billion dollars.

(c) Foreign crop and live stock production. The Bureau proposes to collect and publish timely foreign crop and live stock statistics, especially of competing countries of surplus production, for the information of American farmers and business men. The relation of supply and demand and resulting prices operates not only in competing countries and States, but throughout the United States and all foreign countries. Great interest in foreign crop statistics has developed since the war period. World balance sheets will be prepared regularly, perhaps quarterly, showing consumption, production, net imports and exports, and net surpluses and deficiencies for all the principal countries of the world. This information will be of vital importance to farmers' organizations, the Federal and State Bureaus of Markets, and to all other agencies concerned in the formulation of constructive programs of production and marketing.

(d) Analysis, interpretation, and graphic presentation of crop and live stock statistics. It is proposed by more frequent and timely publication, by more thorough analysis, a summarization and interpretation, and by graphic methods of presentation, to make more strikingly and readily apparent the significance of the essential facts of text and tabular statements. This will economize the time of all who have occasion to use agricultural statistics and make them of greater practical value.

Summary of Program.

- (1) Adequate live stock reports.
- (2) Estimates of marketable surplus.
- (3) County estimates.
- (4) Foreign crop and live stock estimates.
- (5) Better summarization, interpretation, and presentation of crop statistics.

Distribution of General Expense Appropriation and Estimates by objects:

	1920	Increase	1921	Value of
Administration	\$12,188	\$2,238	\$14,426	Crop.
<u>Cereal Crops.</u>				
Corn	22,000	13,300	35,300	\$3,528,313,000
Wheat	22,000	13,300	35,300	1,874,623,000
Oats	15,000	7,400	22,400	1,092,423,000
Barley	6,000	2,500	8,500	235,269,000
Buckwheat	2,000	1,600	3,600	28,585,000
Rye	7,350	3,450	10,800	134,947,000
Rice	8,000	6,700	14,700	777,474,000
Grain Sorghum	5,000	3,500	8,500	99,848,000
Total for cereals,	\$87,350	\$51,750	\$139,100	\$7,771,482,000
<u>Hay & Forage Crops.</u>				
Pastures	\$ 500	\$ 3,450	\$ 4,750	\$1,000,000,000
Grass	3,575	11,425	15,000	438,122,000
Clover	4,100	7,000	11,900	606,068,000
Alfalfa	4,100	7,800	11,900	299,383,000
Millet & other tame hays	1,025	2,750	3,775	178,899,000
Wild hays	2,500	3,650	5,950	219,185,000
Total for hay & forage	\$16,400	\$36,875	\$53,275	\$2,741,657,000
<u>Live Stock.</u>				
Horses & Mules	\$ 860	\$ 6,800	\$ 7,660	\$2,788,476,000
Dairy Cattle	1,975	33,800	33,775	1,836,055,000
Dairy Products	875	8,800	9,675 (est)	1,000,000,000
Other Cattle	1,975	37,200	39,175	1,960,670,000
Sheep	6,000	12,500	18,500	579,016,000
Wool	.....	3,718	3,718	145,467,000
Swine	3,800	29,000	37,300	1,665,987,000
Poultry & Eggs	225	12,900	13,125 (est)	1,000,000,000
Total for Live Stock	\$20,710	\$144,712	\$165,428	\$10,975,671,000

	1920	Increase	1921	Value of Crop
<u>Truck Crops.</u>				
Tomatoes	\$2,550	\$2,450	\$5,000	\$51,060,000
Lettuce	1,300	1,700	3,000	26,169,000
Celery	1,300	1,200	2,500	25,746,000
Onions	8,100	1,900	10,000	13,268,000
Cabbage	8,900	2,100	11,000	14,818,000
Cantaloupes	2,025	1,000	3,025	18,672,000
Sweet Corn	.....	1,900	1,900	8,000,000
Watermelons	2,025	1,000	3,025	6,196,000
Beans, Green	.....	1,750	1,750	3,500,000
Peas, "	.....	1,750	1,750	3,500,000
Cucumbers	.....	1,750	1,750	3,500,000
Asparagus	.....	1,650	1,650	3,000,000
Other				
Vegetables.....		3,540	3,540	8,000,000
Total for Truck Crops	\$26,200	\$23,690	\$49,890	\$185,429,000
<u>Fruit Crops.</u>				
Apples	\$12,400	\$ 6,050	\$18,450	\$229,990,000
Pears	2,400	2,450	4,850	14,200,000
Quinces	.....	750	750	500,000
Peaches	4,000	7,350	11,350	61,587,000
Apricots	400	1,200	1,600	5,000,000
Plums & Prunes	.....	2,500	2,500	15,000,000
Cherries	.....	1,500	1,500	15,000,000
Citrus	1,300	1,800	3,100	119,880,000
Grapes	.....	5,150	5,150	25,000,000
Straw- berries	4,100	750	4,850	25,000,000
Raspberries	.....	1,100	1,100	6,000,000
Blackberries, Dewberries, Loganber- ries	.....	1,100	1,100	5,000,000
Currants	.....	750	750	1,000,000
Gooseberries	.....	725	725	750,000
Cranberries	625	450	1,075	3,794,000
Figs	.....	350	350	1,000,000
Pineapples	.....	350	350	1,000,000
Olives	.....	350	350	600,000
Other Fruits	.....	1,580	1,580	100,000
Total for Fruit Crops.	\$25,225	\$36,255	\$61,480	\$530,401,000
Potatoes, white	\$10,400	\$23,590	\$33,990	\$595,000,000
Sugar Crops	2,975	15,295	18,270	157,000,000
Cotton	18,100	20,876	38,976	1,587,445,000

	1920	Increase	1921	Value* of Crop.
<u>Legumes.</u>				
Beans, dry	\$1,500	\$5,350	\$6,850	\$93,639,000
Beans, soy	250	4,450	4,700	10,000,000
Beans, velvet	300	4,400	4,700	20,000,000
Cowpeas	800	3,800	4,600	27,000,000
Peanuts	<u>700</u>	<u>11,300</u>	<u>12,000</u>	<u>95,829,000</u>
Total legumes	\$3,550	\$29,300	\$32,850	\$246,468,000
<u>Nut Crops.</u>				
Walnuts	.....		\$ 4,500	\$2,500,000
Pecans	.....		4,500	2,500,000
Almonds	.....		3,000	1,000,000
Other nuts	<u>.....</u>		<u>1,670</u>	<u>750,000</u>
Total nuts			\$13,670	\$6,750,000
<u>Seed Crops.</u>	.....	\$18,320	\$18,320	\$35,000,000
Oilseed crops	.....	15,420	15,420	1,000,000,000
Forage crops	.....	16,870	16,870	250,000,000
Nursery crops	.....	50,000	50,000	56,000,000
Miscellaneous Crops	<u>1,300</u>	<u>3,700</u>	<u>5,000 (est)</u>	<u>-50,000,000</u>
Total for all crops	<u>\$219,710</u>	<u>\$511,614</u>	<u>\$731,324</u>	<u>\$26,563,303,000</u>

Crop Records & Research Division.

Collecting official and unofficial agricultural statistics of all countries.....	\$1,370	\$1,435	\$2,805
Translating foreign agricultural statistics.....	1,900	2,260	4,160
Preparing United States crop reports for International Institute of Agriculture at Rome.....	1,070	405	1,475
Preparing agricultural statistics for issuance to the press.....	315	1,185	1,500
Preparing statistical tables for use in correspondence.....	2,300	5,700	8,000
Compiling and interpreting world statistics, preparing charts and maps.....	1,655	7,345	9,000

	1920	Increase.	1921
Analytical studies of individual crops covering a long period of years, for the United States.....	\$ 434	\$3,566	\$4,000
Same, foreign countries.....	...	1,500	1,500
Analytical studies of crops in the nature of world balance sheets.....	100	3,000	3,100
Collecting and presenting by text, charts and maps, data on farm labor, value of farm lands, prices farmers receive, cost of farm machinery, etc.....	100	4,900	5,000
Preparation of Yearbook articles, statistical appendices, bulletins, crop notes, etc.....	<u>900</u>	<u>4,852</u>	<u>5,752</u>
Total.....	\$10,144	\$36,148	\$46,292
Total for Bureau.....	\$210,042	\$550,000	\$792,042

How increase in appropriation
would be expended:

It is the purpose of the Bureau to greatly strengthen its branch offices in the field, rather than to build up a topheavy Bureau organization in Washington, as follows:

(1) Employ 42 assistant field agents with salaries ranging from \$2,000 to \$2,400, with same qualifications as field agents. These additional men are needed for the physical handling of the volume of work now required of each field agent in each State; also to have an understudy to the field agent in training to carry on the State field agent work without interruption or break in the service when a field agent dies or resigns. Nearly 20 per cent of the field agent force have resigned in the last six months to enter private employment at an average increase of approximately 90 per cent over their Bureau salaries, with no one to take their places. It requires from two to four years to develop the judgment of a field agent and for him to become familiar with local conditions in every county of his State. Each field agent therefore represents an investment by the Government of from \$10,000 to \$20,000 and when one resigns this investment is lost and there is a gap of about two years in the service in his State. This difficulty and loss can be avoided by having two men in each State, so that when one drops out there will still be left an experienced man to supervise the work and train his successor.

(2) To employ a number of additional crop specialists. The success of the Bureau in estimating fruit and truck crops, especially marketable surplus production of those crops, is due largely to the employment of crop specialists who conduct intensive surveys of important areas, enlist the cooperation of growers and growers' organizations, supplement the work of field agents and voluntary crop reporters, and coordinate and correlate the work of the Bureau relating to special crops on a uniform basis throughout the United States. It is proposed to employ one or more crop specialists for each of the great staple crops, and one or more for important minor crops, such as beans, peanuts, pecans, grain sorghums, and one or more each for swine, sheep, beef cattle, dairy cattle, and for important fruits and other crops.

(3) To build up large lists of growers of special crops, i. e., men who are well informed with respect to the particular crop for which they supply information to the Bureau. Experience has shown that great improvement in the accuracy and dependability of crop and live stock reports can be effected by obtaining information from a sufficiently large number of individual reporters who are interested in

and are well informed concerning the particular crop for which they report.

(4) To maintain a large list of farmers who will report regularly the acreages, yields per acre and numbers of live stock, etc., for their own individual farms. In other words, the Bureau will make a periodical census of a large number of representative farms as a measure and basis of estimating the conditions and changes on all farms.

(5) To employ a sufficient number of additional clerks and statisticians in the Washington office to handle efficiently the increase in the work involved in expanding the service, and to present and interpret the results of its statistical investigations in more strikingly and readily understandable form by means of maps, graphs and diagrams.

Estimates of appropriation and action
on same in Congress on March 10, 1920.

Total appropriation:

Present appropriation (1920).....	\$371,102
Total estimated as required	
(1921).....	967,782; increase over
present year of \$596,000.	
H. R. Bill 12272 as reported	
by the House Committee.....; ; ; ;	322,856; decreasing
present appropriation	
\$48,246; decreasing esti-	
mates \$644,926.	
H. R. Bill 12272 as passed by	
House.....	317,376; decrease of
\$5,480 in Administrative	
fund.	
H. R. Bill 12272 as reported	
by Senate Committee.....	322,856; restoring \$5,480
cut on floor of House.	

Statutory salaries:

Present Statutory Roll.....	\$129,060.
H. R. Bill 12272	129,300; increase by trans-
fer of 1 employee \$240.	
Estimates submitted by Bureau	175,740.

Administrative funds:

Administrative Lump Fund
present appropriation..... \$ 25,480; as reported by
House Committee.
Cut on floor of House to..... 20,000; decrease of
\$5,480.
Restored in Senate Committee to.. 25,480; same as pres-
ent appropriation.

Field General Expenses:

For Field General Expenses,
estimated.....\$764,324
Present appropriation..... 216,562.
H. R. Bill 12272, House and
Senate,..... 168,076; decrease of
\$48,486 from present appro-
priation.

Effect of reducing present
appropriation:

The proposed reduction of \$48,480 from the present appropriation of the Bureau of Crop Estimates represents the approximate cost of special service for fruit, potatoes and truck crops. If the reduction is allowed to stand it will necessitate discontinuing these special services. These projects are described in separate memoranda attached, together with sample reports. They are of great practical value to growers and marketing agencies, and their discontinuance will result in great financial loss.

Recommendations with respect
to H. R. 12272:

(1) The \$5,480 in the Administrative Lump Fund, cut out on the floor of House and restored by Senate Committee, should be retained at all hazards; it represents more than 20 per cent of small Administrative Fund from which must be paid all salaries of administrative staff, except the Chief, and expense of all equipment and supplies for the Washington office.

(2) The cut of \$48,486 in present Field General Expenses Fund, as carried by H. R. 12272, should be restored if possible. It represents approximately the expense of special service for fruit and truck crops, and if the reduction stands it will necessitate discontinuing the special services which are of great financial value to growers.

(3) If possible a further increase of at least \$140,000 for adequate live stock estimates, and \$53,438 for county estimates, should be obtained. At present the Bureau has an allotment of only \$20,700 for estimating the 10 billion dollar live stock industry. Without some increase it will be impossible to retain through another fiscal year the splendid organization of trained and experienced field agents, which will represent a loss to the public out of all proportion to the amount involved.

Importance of interests involved:

Dependable crop and live stock estimates with respect to production and supply are essential to profitable farming and to constructive programs of production and marketing. Agriculture is the greatest basic industry in the United States because.

(1) More men are engaged in farming than in any other industry; about 13,500,000 at the last census (farm owners and hired help).

(2) More people are directly and indirectly dependent upon agriculture than upon any other industry; nearly half the entire population at the last census.

(3) The capital valuation of farm lands, buildings and equipment in the United States is in excess of 80 billion dollars, which is more than the combined capital value of all manufactures, railroads, mines and quarries.

(4) The annual value of farm production is in excess of 20 billion dollars; in 1919 it was nearly 25 billion dollars, or approximately the same as the entire national debt.

(5) Agriculture contributes largely to raw materials of manufactures and to the export trade of the country.

(6) It is the source of the food supply and raw materials for clothing of the entire population.

(7) So dependent upon agriculture are all other industries that agriculture serves as a barometer of business; when agriculture prospers other industries prosper, and vice versa.

(8) Agriculture cannot prosper unless the business of farming is profitable.

(9) The business of farming cannot be profitable unless farmers receive prices in excess of cost of production.

(10) Prices farmers receive depend upon the relation of supply to demand.

(11) The demand for agricultural products is constant, with a tendency to increase with population; therefore relative supply is the price-determining factor.

(12) Because relative supply, which is the equivalent of marketable surplus production, is the price-determining factor, it is absolutely necessary that producers and all marketing and distributing agencies shall have dependable information with respect to the essential facts of production and supply.

(13) The Bureau of Crop Estimates is the only agency which is organized to collect and furnish dependable, authoritative, disinterested and nation-wide information with respect to production and relative supply.

Cost of Crop reporting service:

On the basis of an estimated population of 110 million, the estimates of appropriation submitted for the Bureau of Crop Estimates of \$967,000 represent a percapita cost of a greatly expanded and improved service as outlined in the enlarged program of the Bureau of less than a 1-cent postage stamp. The present appropriation of the Bureau is less than 1/2 cent per capita.

Financial returns to farmers:

Numerous instances of financial gain are reported by many farmers in every State, ranging from \$40 to \$40,000 per farm, from utilizing the information contained in the Government crop reports; in other words, by observing relative supply of farm products as disclosed by the crop reports, farmers are enabled to sell their farm surpluses to the best advantage.

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BUREAU OF CROP ESTIMATES,
U. S. DEPARTMENT OF AGRICULTURE,
March 12, 1920.

Commercial Fruit Estimating Project.

Reason for the project:

In response to a long and insistent demand of fruit growers from all parts of the country and particularly from the Commercial regions of the Virginia, New York, the Middle West and the Northwest for commercial fruit estimates the Bureau of Crop Estimates undertook in 1917 to establish a reporting service and system to comply with this public demand of the producers.

Three trained fruit men were employed to separate the commercial crop from the total crop and make monthly estimates on apples, peaches and pears. Previous to this only the total crop had been estimated. This total crop in an average year amounts to about 56,000,000 barrels while the commercial crop amounts to about 25,000,000 barrels or about 44 per cent of the total. In some States this commercial crop runs as low as 3 per cent of the total and in others as high as 80 per cent of the total apple crop. Only the commercial part of the total crop determines the market price. It became absolutely necessary, therefore, to separate these two crops and to make reliable estimates for the separate States and regions supplementing these estimates with pertinent and intelligent comments. The voluntary aid of about 10,000 apple growers was enlisted and a careful survey made by the fruit specialists of every important apple county in the United States. The fruit specialists began this work in 1917 and by 1919 had established

a thoroughly reliable and popular crop reporting service on apples, pears and peaches, covering each State and region and giving detailed attention to varieties in these regions, their condition, available supply, etc. The purpose was to give the fruit grower thoroughly reliable and up-to-date information on the size and quality of the fruit crops in the various competing commercial regions. Growers, horticultural societies and growers' representatives generally are ready to testify that this has had the effect of putting the apple business, amounting this last year to \$275,000,000 on a stable basis and removed most of the uncertainty and speculation usually attendant upon it. These same authorities testify that this service has saved the fruit growers millions of dollars at no extra expense to the consumer.

Scope of work at present:

The present system is well established with over 15,000 fruit reporters and 6,000 potato reporters. These reporters are commercial growers and thus familiar with the industry. They are asked to report on no other crops. Close personal relations have been established by the specialists with the leading growers and horticultural men in the various States and the service is well built up and thoroughly efficient. Mimeograph reports are issued every month during the growing season and sent to the growers scattered throughout the country. The demand for these reports is insistent and they are of immediate value. They are not investigational but mean dollars and cents to the producers and those interested in the industry. In other words, the grower is given the advantage of knowing exact crop conditions through an unbiased service and this has meant dollars to him since he no longer needs to accept the

speculator's figures on crop conditions. Relative to the very wide and general appreciation of the great value of the work there is no question. Any group of representative commercial fruit growers will testify as to its great value. Its principal limitations have been that on account of lack of funds no fruit crops other than apples, peaches and pears could be taken up.

The commercial potato estimates began in 1919 and received the same welcome on the part of the producers as the fruit estimates. These estimates separated the late commercial potato crop in the various States from the total crop. That is to say the surplus crop or the number of cars of potatoes which would move to outside markets was estimated for each State.

These estimates necessarily must be made by specialists thoroughly acquainted with and understanding the industry. They must be familiar with the regions, methods, varieties, and have the agricultural viewpoint. Such specialists will be no longer available and hence all commercial estimates will have to be discontinued under the present cut in the Bureau of Crop Estimates.

Direct Effect of Decrease.

The present decrease in the appropriations for the Bureau of Crop Estimates will mean the elimination of the special reporting services in commercial fruit and potato crops. The elaborate and efficient system slowly built up and giving universal satisfaction to tens of thousands of producers will have to be discontinued. The splendid cooperation attained by three years of effort will be wasted and the direct result will be to throw the commercial fruit and potato industry back into the hands of the speculator and leave the producer at his mercy. Such commercial

Services positively mean a saving of millions to the producers without any extra cost to the consumer. The speculator alone benefits by keeping the grower in the dark and leaving him without information of the most vital and immediate importance.

Bureau of Crop Estimates,
U. S. Department of Agriculture,
March 12, 1920.

MEMORANDUM FOR MR. ESTABROOK

Dear Mr. Estabrook:

TRUCK CROP PROJECT.

The work was started on July 1, 1914, although the specialists assigned to the work had devoted considerable time to necessary preliminary work before that date.

The first reports covered the cabbage and onion crops of the north in the fall of 1914 and were followed by a general survey of the winter trucking regions from Florida to California, consuming in all about 7 months of field work. Lists of correspondents were secured and forms and schedules worked out. Assistants in the Washington office were provided from time to time and the present force consists of one Assistant Specialist, one stenographer and typewriter, and four clerks. Two Assistant Truck Crop Specialists for field work were provided on January 1, 1917, one being assigned to the Atlantic Coast States and the other to the Pacific Coast and including Idaho, Utah, Colorado, Nevada, Arizona, and New Mexico. Another field Specialist was provided in 1918 and assigned to the middle territory.

CROPS COVERED.

Thirty truck crops in all are covered in the Weekly Crop and Market Review of Fruits and Vegetables, which is published in cooperation with the Bureau of Markets. In this Review, acreage, condition, forecasts of production, market reviews and carlot movements are covered.

CANNING CROPS.

Special reports on tomatoes, corn, peas, snap beans, cucumbers for pickling and cabbage for kraut are made and forecasts of production upon which are based forecasts of the pack are made.

The above information is based upon schedule returns from about 10,000 correspondents, and the information secured by Field Specialists, who travel constantly throughout the year following the development of the crops from South to North.

The copies of letters herewith show the wide call for the information now being published.

Very truly yours,

F. J. BLAIR.
Truck Crop Specialist.

R E S O L U T I O N .

ASKING FOR AN INCREASED APPROPRIATION FOR
GATHERING OF LIVE STOCK STATISTICS.

- WHEREAS. The Livestock industry of the United States represents a valuation approximating eleven billions of dollars; and
- WHEREAS. It contributes more than fifty per cent to the export trade of the nation; and
- WHEREAS. It underlies, directly or indirectly, all of the branches of the basis industry of agriculture and thereby affects the success of it and of the well-being of every citizen of the nation; and
- WHEREAS. It is fully realized that complete, accurate, authoritative, timely and unbiased statistics upon the industry are necessary to a proper and intelligent management of it; and
- WHEREAS. The funds appropriated by Congress in the past have been so inadequate that to make a proper survey of the industry has been impossible; such a survey being necessary to the planning and operation of all marketing and producing projects; therefore be it

RESOLVED: By the Panhandle and Southwestern Stockmen's Association, in annual Convention assembled at Tucson, Arizona, March 2, 3, and 4, 1920, that we urge Congress at the present session to appropriate the Two hundred and Eighty-two Thousand Dollars additional asked for in the estimates for the Bureau of Crop Estimates, United States Department of Agriculture for the fiscal year of 1921 for the use of supplying complete statistics of the cattle industry in the same manner as now supplied for crops, and that we indorse the present efforts of this Bureau in this direction.

AND BE IT FURTHER RESOLVED: That The Panhandle and Southwestern Stockmen's Association commends the activities which, under the direction of the Secretary of Agriculture, are in progress to obtain thorough and comprehensive data on the cost of production of live stock; and we urge that these data be gathered and, with proper interpretations, be widely disseminated at the earliest date possible.

